CABLETRON SYSTEMS inc.
The Complete Networking Solution

CUSTOMER RELEASE NOTES

SmartStack Fast Ethernet Hub
ELH100-12/24TX
Firmware Version 1.00.00
June 14, 1999

INTRODUCTION:

The ELH100-12/24TX are 12 and 24 port dual-speed manageable standalone, stackable or rack-mountable repeaters. Each repeater has 2 distinct internal repeater buses; one for 10Mbps Ethernet and another for 100 Mbps Fast Ethernet. The front panel ports have auto-sensing capability, and will determine if the connection is to a 10 Mbps or 100 Mbps network, and attach to the proper internal 10 or 100 Mbps segment. Modular options are available for the 12 or 24 port base units which provide network management capability, and bridging between the 10 and 100 Mbps segments along with a switched external port with a choice of 10/100BaseT/TX or 100BaseFX connectivity.

The ELH100-12/24TX repeaters can be stacked, up to a maximum of 6 repeaters high, via daisy-chained SCSI connectors on the rear of each unit. This will provide a maximum of 144 repeated ports, and a maximum of 6 optional switched ports. A stacking cable is provided with every base hub unit.

Management of the hub or stack is provided when an optional management module is installed. Management access is provided in-band via Telnet, TCP/IP, or Serial Line IP (SLIP), or out of band via the serial console port interface either directly or through an attached modem. An imbedded Web agent also provides management capability to any computer on the network via common Http browsers such as Netscape Navigator or Microsoft's Internet Explorer. (Both browsers should be Version 3.0 or above.)

Local Console Management (LCM) allows the user to monitor and configure the ELH100-12/24TX from a VT-type terminal. LCM can be used to configure features such as SNMP community names and access rights, Port Enable/Disable, firmware downloads, and Device IP address as well as most other parameters. LCM can also provide statistical and diagnostic information about the entire device or an individual port.

Management of the hub or stack is password protected; the same passwords are used for LCM and for the Web browser interface. Prior to accessing the management module via a network connection, a valid IP address, subnet mask, and in some cases a default gateway must be configured using an out of band connection or the BootP protocol. The management option provides SNMP, RMON (4 groups: 1,2,3,9) and Web management for system control and statistical monitoring.

> **It is recommended that one thoroughly review this release note prior to the installation or upgrade of this product.**

FIRMWARE SPECIFICATION:

Status	Version No.	Type	Release Date
Current Version	1.00.00	Customer	6/14/99

HARDWARE COMPATIBILITY:

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ALL

BOOTPROM COMPATIBILITY:

ALL

NETWORK MANAGEMENT SOFTWARE SUPPORT:

NMS Platform	Version No.	Module No.
SPECTRUM	Post 5.0	Rev. 1
SPMA (Spectrum Portable Management Application)	Post 3.2	Rev. 1
SPEL (Spectrum Element Manager)	Post 2.01.01	N/A

If you install this image, you may not have control of all of the latest features of this product until the next version(s) of network management software. Please review the software release notes for your specific network
management platform for details.

SUPPORTED FUNCTIONALITY:

Features	Support
Auto Sensing of port speed	Yes
Local Management via TELNET	Yes
RMON Groups 1,2,3,9	Yes
Runtime Address Discovery	Yes
Packet Forwarding and Filtering (switch/media modules)	Yes
Address Data Base Maintenance (switch/media modules)	Yes
Online BOOTP/TFTP	Yes
TFTP download from a host	Yes
Address display	Yes
Watchdog Timeout	Yes
Uplinks (switch/media modules)	Yes
SNMP	Yes
Two Telnet sessions	Yes
Imbedded Http Agent	Yes
Full Duplex (switch/media modules)	Yes
Port Security	Yes
Stacking	Yes
Port Redundancy	Yes
Option Redundancy	Yes

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INSTALLATION AND CONFIGURATION NOTES:

In general, the **ELH100-12/24TX** will be shipped to you pre-configured with this version of firmware. If you would
like to upgrade an existing **ELH100-12/24TX,** please follow the TFTP download instructions that are included
with your firmware image upgrade kit. TFTP download instructions are also available on the Cabletron Support web site at: **http://www.cabletron.com/support/techtips/tk0020-9.html**.

FIRMWARE CHANGES AND ENHANCEMENTS:

Initial Customer Release of Firmware.

KNOWN RESTRICTIONS AND LIMITATIONS:

The following is a known limitation of this release:

• Spanning Tree is not supported on the base unit repeated ports nor on the optional switch/media ports. The user is cautioned to understand and avoid configurations that can create a network loop.

Any other problems than those listed above should be reported to our Technical Support Staff.

COMPLIANCE SUPPORT:

Compliance Level	Compliant
Year 2000	YES*

Known Anomalies: None.

* No "Real-Time Clock" is supported with the ELH100-12/24TX Firmware Version 1.00.00.

IEEE STANDARDS SUPPORT:

Standard	Title
IEEE 802.2	Local Area Networks, Logical Link Control (LLC)
IEEE 802.3	CSMA/CD 9 (ISO/IEC 8802-3)
IEEE 802.3I	10Base-T (ISO/IEC 8802-3, clause 14)
IEEE 802.3u	100Base-TX (ISO/IEC 8802-3, clause 25)
IEEE 802.3u	100Base-FX (ISO/IEC 8802-3, clause 26)

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IETF STANDARDS MIB SUPPORT:

RFC No.	Title	Groups Supported
1157	Simple Network Management Protocol(SNMP)	
1213	MIB-II	System, Interfaces, IP, ICMP, UDP, Transmission (dot3), and SNMP
1643	Ethernet-like	Various Ethernet specific aspects
1757	RMON MIB	Statistics, History, Alarm, and Event
2108	Multi-segment Repeater	Various managed objects

CABLETRON PRIVATE ENTERPRISE MIB SUPPORT:

Title	Version
ELH100-mib.txt	01.00.00

Cabletron Private Enterprise MIBs are available in ASN.1 format from the Cabletron web site at: **http://www.cabletron.com/support/mibs/** . Indexed MIB documentation is also available.

SNMP TRAP SUPPORT:

RFC No.	Title
RFC 1757	IETF RMON, ENTERPRISE rmon -- 1.3.6.1.2.1.16 risingAlarm 1 fallingAlarm 2
RFC 2108	rptrInfoHealth 4 rptrInfoResetEvent 5

CABLETRON PRIVATE ENTERPRISE TRAP SUPPORT:

NONE.

GLOBAL SUPPORT:

     By Phone: (603) 332-9400
     By Email: support@cabletron.com
     By Web: http://www.cabletron.com/support
     By Fax: (603) 337-3075
     By Mail: Cabletron Systems, Inc.
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For information regarding the latest firmware available, recent release note revisions, or if you require additional assistance, please visit the Cabletron Support web site.